

Amendments to Specification

Pages 13-14, rewrite the paragraphs starting at line 5, page 13 and ending at line 21, page 14, to read as follows:

Fig. 5 is a view showing a structure in principle of a color display apparatus 11 ~~apparatus 21~~ according to a second embodiment of the invention;

Fig. 6 is a view showing a structure in principle of a color display apparatus 21 according to a third embodiment of the invention;

Fig. 7 is a view showing a matrix electrode structure for voltage application with each embodiment of the invention;

Fig. 8 is an enlarged view showing a reflection behavior of light on the surface of a bubble 32 in one bubble-containing fine particle 29 that may be used in the display apparatus 1, 11, 21 according to the first, second or third embodiment of the invention;

Fig. 9 is a view showing a relation of an incident angle of polarization p, energy reflectance Rp and energy transmittanceTp with regard to a bubble 32 shown in Fig. 8;

Fig. 10 is a view showing a relation of an incident angle of polarization s, energy reflectance Rs and energy transmittance Ts with regard to a bubble 32 shown in Fig. 8;

Fig. 11 a view graphically showing a cross-sectional structure in a thickness direction of a part of a display apparatus 41 according to ~~a fourth a-forth~~ embodiment of the invention;

Fig. 12 is a view showing a driving principle of a light transmitting liquid 8 and a bubble 42 within one hole 7 formed in two-layered porous film 4 shown in Fig.11;

Fig. 13 is a view showing a relation between field intensity and moving speed of a bubble shown in Fig. 12;

Fig. 14 is a view showing a method for voltage application to display a white image in a display apparatus 41 shown in Fig. 11;

Fig. 15 is a view showing a method for voltage application to display a black image in a display apparatus 41 shown in Fig.11;

Fig. 16 is a view showing a structure in principle of a color display apparatus 51 according to a fifth embodiment of the invention;

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Fig. 17 is a view showing a structure in principle of a color display apparatus 61 according to a sixth embodiment of the invention; and

Fig. 18 is an enlarged view showing a reflection behavior of light on a surface of one bubble 42 that may be used in the display apparatus 41, 51, 61 according to the fourth, the forth, fifth or sixth embodiment of the invention.

Pages 24-25, rewrite the paragraph starting at line 14 on page 24, to read as follows:

As in Fig. 4, when a minus voltage is applied to the side of the upper electrode 6, then the minus-charged fine particles 9 move downward. In this condition, the incident light to the transparent upper substrate 3 passes through the transparent upper electrode 6, then passes through the transparent part of the upper-layer transparent porous film 4a or the transparent part of the light transmitting liquid 8 filled in the holes 7 of the two-layered porous film 4, further passes through the black part of the lower-layer black porous film 4b, and reaches the surfaces of the fine particles 9 whereupon the light intensity is attenuated. The light having reached the surfaces of the fine particles 9 greatly changes its running direction owing to the curved surfaces of the fine particles 9 and owing to the significant change in the refractive index, as so mentioned hereinabove. Specifically, the incident light is irregularly reflected on the surfaces of the fine particles 9 and inside them, and then again passes through the black part of the lower-layer black porous film 4b whereupon the light intensity is attenuated. The incident light and the irregularly-reflected light reflected light tp are absorbed by the black part of the lower-layer black porous film 4b so that the light intensity is thereby fully attenuated, and therefore the intensity of the reflected light passing through the upper substrate 3 is nearly 0. As a result of the irregular reflection in the black part of the lower-layer black porous film 4b, the light is absorbed, not giving reflected light, and the apparatus therefore looks black.

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Pages 40-41, rewrite the paragraph starting at line 18 on page 40, to read as follows:

When a resin substrate comprising an organic compound is used for the upper substrate 3 and the lower substrate 2 between which the two-layered porous film 4 is sandwiched and when an electroconductive polymer is used for the transparent upper electrode 6 and the lower electrode 5, then the display apparatus 41 may be flexible as a whole. Since the upper substrate 3 must transmit light, a resin material such as PMMA (methacrylic resin), polyolefin, polycarbonate or polyimide may be used therefor. The upper electrode 6 and the lower electrode ~~5~~ lower electrode 5 to may be formed of a material containing an electroconductive polymer such as polyacetylene, polydiacetylene, polypyrrole, polyparaphenylene, pentacene, anthracene.

Pages 46-47, rewrite the paragraph starting at line 23 on page 46, to read as follows:

Fig. 16-Fig. 17 graphically shows a partly-cut cross-sectional structure of a color display apparatus 61 according to a sixth embodiment of the invention. This embodiment is similar to the third embodiment shown in Fig. 6, and the same reference numerals or signs are given to the corresponding parts in these, and repeated descriptions may be omitted herein. Also in this embodiment, the position of the bubbles 42 is changed by voltage control, in place of the fine particles 9 in Fig. 6, for color displaying.

Pages 48-49, rewrite the paragraph starting at line 21 on page 48, to read as follows:

The relationship between the size of the bubble 42 and the visibility of the bubble 42 is organoleptically evaluated. When the size of the bubble 42 is 200 μm or more, then the periphery of the bubble 42 ~~bubble 42n~~ looks white owing to scattering and reflection thereon, and the center part of the bubble 42 may be transparent and the background black is seen; and, as a result, bubble 42 is visible and a granular feeling is taken. As opposed to this, it has been found that, when the size of the bubble 42 is 100 μm or less, then the bubble 42 is not almost visible and its granular feeling is almost lost. Accordingly, for obtaining good display images, the hole size of the two-layered porous film 4, 24 is at most 100 μm .